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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/085,247 | 02/26/2002 | Klaus Kohlhammer | WAS 0514 PUS | 3601 |

7590 03/15/2004

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| EXAMINER |
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GOFF II, JOHN L

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| ART UNIT | PAPER NUMBER |
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1733

DATE MAILED: 03/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|-------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 10/085,247 | Applicant(s) KOHLHAMMER ET AL. | |
| | Examiner John L. Goff | Art Unit 1733 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-37 is/are pending in the application.
- 4a) Of the above claim(s) 17-21, 24 and 31-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16, 22, 23 and 25-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/495,533.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>2/26/02</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 16-32, drawn to a process for laminating a textile sheet material to a foamed particle molding, classified in class 156, subclass 283.
 - II. Claims 33-37, drawn to a laminated molded particle foam and textile sheet, classified in class 428, subclass 317.1.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by a materially different process such as by applying the adhesive in a form other than a solid, e.g. as a dispersion.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

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5. This application contains claims directed to the following patentably distinct species of the claimed invention:

If Group I is elected a further species election from Species I-(A-C) and Species II-(A-C) is required:

Species I:

Species I-A (appears to read on claims 18-20) drawn to the application method as described in steps ai-aiii of claim 16.

Species I-B (appears to read on claims 17, 19, and 20) drawn to the application method as described in steps bi-biv of claim 16.

Species I-C (does not appear to read on any of the claims) drawn to the application method as described in steps ci-cii of claim 16.

Species II:

Species II-A (appears to read on claims 21, 24, and 31) drawn to the pulverulent solid adhesive comprising a vinyl acetate copolymer.

Species II-B (appears to read on claims 22, 23, and 30) drawn to the pulverulent solid adhesive comprising styrene and acrylate copolymer.

Species II-C (appears to read on claim 32) drawn to the pulverulent solid adhesive comprising methacrylate and acrylate copolymer.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, claims 16 and 25-29 are generic.

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Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

6. During a telephone conversation with Bill Conger on 3/1/04 a provisional election was made with traverse to prosecute the invention of Group I, Species I-C, and Species II-B, claims 16, 22, 23, and 25-30. Affirmation of this election must be made by applicant in replying to this Office action. Claims 17-21, 24, and 31-37 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the

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application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 16, 22, 23, and 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearson et al. (U.S. Patent 3,783,085) in view of Kimura et al. (U.S. Patent 3,841,952) and Shin (U.S. Patent 4,761,328).

Pearson et al. disclose a method for forming protective material used to make garments wherein the method comprises interposing powdered charcoal and powdered thermoplastic adhesive between two substrates and heat-sealing the assembly together (Column 1, lines 15-19 and Column 2, lines 57-69 and Column 4, lines 53-58). Pearson et al. further disclose the two

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substrates may comprise textile fabric and foam (Column 2, lines 30-32). Pearson et al. are silent as to all particular powdered thermoplastic adhesives that may be used in the method. Although it is noted Pearson et al. suggest particular powdered adhesives by way of specific examples, Pearson et al. are not limited to these or any other powdered thermoplastic adhesive. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the powdered thermoplastic adhesive taught by Pearson et al. any of the well known and conventional adhesives used in the art for heat sealing garment materials such as the powdered thermoplastic adhesive suggested by Kimura et al. wherein the adhesive taught by Kimura et al. provides the garment material taught by Pearson et al. with addition benefits such as improved heat resistance, storage stability, etc.

Kimura et al. disclose a thermoplastic adhesive used to bond together two substrates during the manufacture of a garment wherein the adhesive (may be applied as a powder) forms a bond that does not separate during washing or drycleaning, i.e. the adhesive is resistant to delamination at temperatures above 80 °C (Column 1, lines 28-31 and 48-50 and Column 2, lines 12-16 and Column 4, lines 55-56). Kimura et al. teach the adhesive comprises styrene, acrylonitrile, and alkylacrylate (including butylacrylate) and additional comonomers such as acrylic acid (Column 2, lines 23-34 and 39-45 and Column 3, lines 10-15). Kimura et al. teach the adhesive has a melting point of 60-150 °C such that one of ordinary skill in the art would readily appreciate the glass transition temperature of the adhesive is greater than 30 °C. Kimura et al. are silent as to the particular amount of acrylic acid in the adhesive. However, as noted by Kimura et al. acrylic acid is not a primary component of the adhesive such that one would readily expect the amount of acrylic acid to be low. Additionally, it would have been obvious to one of

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ordinary skill in the art at the time the invention was made to experimentally determine/optimize the amount of each component in the adhesive taught by Kimura et al. as a function of the adhesive properties produced such as adhesive strength, storage stability, etc. as doing so would have required nothing more than ordinary skill and routine experimentation.

It is noted that while Pearson et al. teach forming garments of textile fabric and foam, Pearson et al. are silent as to the particulars of the foam such as the type of foam and the method for producing the foam. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the foam in Pearson et al. as modified by Kimura et al. any well known and conventional foam used for forming garments formed by any well known and conventional process such as that shown for example by Shin as only the expected results would be achieved.

Shin disclose a foam used for making garments wherein the foam is formed of expanded polyethylene particles Column 1, lines 7-9 and Column 2, lines 56-62).

11. Claims 16 and 25-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearson et al. in view of Lauchenauer and Shin.

Pearson et al. disclose a method for forming protective material used to make garments wherein the method comprises interposing powdered charcoal and powdered thermoplastic adhesive between two substrates and heat-sealing the assembly together (Column 1, lines 15-19 and Column 2, lines 57-69 and Column 4, lines 53-58). Pearson et al. further disclose the two substrates may comprise textile fabric and foam (Column 2, lines 30-32). Pearson et al. are silent as to all particular powdered thermoplastic adhesives that may be used in the method. Although it is noted Pearson et al. suggest particular powdered adhesives by way of specific

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examples, Pearson et al. are not limited to these or any other powdered thermoplastic adhesive. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the powdered thermoplastic adhesive taught by Pearson et al. any of the well known and conventional adhesives used in the art for heat sealing garment materials such as the powdered thermoplastic adhesive suggested by Lauchenauer wherein the adhesive taught by Lauchenauer provides the garment material taught by Pearson et al. with addition benefits such as improved heat resistance, storage stability, etc.

Lauchenauer discloses a powdered thermoplastic adhesive used to bond together two substrates during the manufacture of a garment wherein it is desirable for the adhesive to have a softening point above about 100 °C in order to withstand the rigors of laundering, i.e. the adhesive is resistant to delamination at temperatures above 80 °C (Column 1, 26-29 and Column 2, lines 15-16). Lauchenauer teaches the adhesive comprises vinylic copolymers such as vinyl chloride and vinyl acetate with small amounts of additional comonomers such as acrylic acid (Column 4, lines 47-53). Lauchenauer teaches the adhesive has a softening point of 50-200 °C such that one of ordinary skill in the art would readily appreciate the glass transition temperature of the adhesive is greater than 30 °C (Column 3, lines 20-23). Lauchenauer further teaches the adhesive comprises additional amounts of crosslinking agent (less than 40 percent) including polyfunctional epoxides (Column 5, lines 61-63). Lauchenauer is silent as to the particular amount of acrylic acid in the adhesive. However, as noted by Lauchenauer acrylic acid is present in a small amount. Additionally, it would have been obvious to one of ordinary skill in the art at the time the invention was made to experimentally determine/optimize the amount of each component in the adhesive taught by Lauchenauer as a function of the adhesive properties

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produced such as adhesive strength, storage stability, etc. as doing so would have required nothing more than ordinary skill and routine experimentation.

It is noted that while Pearson et al. teach forming garments of textile fabric and foam, Pearson et al. are silent as to the particulars of the foam such as the type of foam and the method for producing the foam. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use as the foam in Pearson et al. as modified by Lauchenauer any well known and conventional foam used for forming garments formed by any well known and conventional process such as that shown for example by Shin as only the expected results would be achieved.

Shin disclose a foam used for making garments wherein the foam is formed of expanded polyethylene particles Column 1, lines 7-9 and Column 2, lines 56-62).

12. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pearson et al., Kimura et al., and Shin as applied to claims 16, 22, 23, and 26-30 above, and further in view of Lauchenauer.

Pearson et al., Kimura et al., and Shin as applied above teach all of the limitations in claim 25 except for a specific teaching of including in the adhesive additional additives such as crosslinking agent. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include in the adhesive taught by Pearson et al. as modified by Kimura et al. and Shin any of the well known and conventional adhesives additives using the art for forming garments including crosslinking agents as shown for example by Lauchenauer (Lauchenauer is described above in paragraph 11) for benefits such as improved resistance to delamination (delamination occurring by melting the uncrosslinked adhesive).

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Conclusion

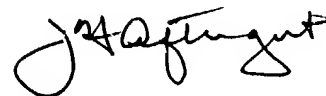
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **(571) 272-1216**. The examiner can normally be reached on M-F (7:15 AM - 3:45 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John L. Goff
March 3, 2004



JEFF H. AFTERGUT
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